

infection are concerned with water supply, disposal of excreta, overcrowding of tents, absence of suitable means of isolation and disinfection, and insubstantial conditions of an unavoidable nature due to stress of war. Typhoid fever illustrates the infectious diseases of the intestinal type. In past wars typhoid fever has broken out toward the end of the first month in spite of all precautions. The finding of the typhoid carrier has dispelled much of the haze surrounding the mode of infection. Probably many of the organisms at the beginning of the outbreak were of low virulence, but increased in virulency on being transmitted through various individuals; men with lowered resistance supplied the early sporadic cases; outbreak assumed proportions of an epidemic after the necessary interval required for development of secondary infections. Ambulatory typhoid and premonitory diarrhea are of great importance. Early cases may have shown only diarrhea; these cases were less likely to show subsequent attacks of clinically typhoid fever. All this shows that diarrhea, in war times, deserves especial consideration and study. Infectivity of dust is short lived but intense while it lasts.

Mortality in cerebro-spinal meningitis is high and 40 per cent. of all contacts are said to be carriers.

Typhus fever of Mexico (tabardillo) and Brill's disease are identical with typhus fever. Immediate associations of this disease are famine, filth and vermin.

Scurvy is a deficiency disease that occurs in besieged forts. Gingivitis, caused by eating hard rations, is often mistaken for a symptom of scurvy.

Measures dealing with diseases in war are as complex and varied as the diseases with which they are designed to deal. Two essential methods are necessary: First, accurate diagnosis on direct clinical observation, provided no laboratory is at hand to give assistance; traveling motor laboratories for each army at the front is of great assistance; also, field laboratories on lines of communications; second, accurate statistical records of prevalence of those diseases which require remedial action.

Preventive measures: antityphoid inoculation absolutely essential; taking temperature of newly raised soldiers necessary before antityphoid inoculation to rule out cases already in the prodromal stage of typhoid fever. Typhus fever is prevented by attention to overcrowding, house sanitation, personal hygiene, proper bathing facilities, methods of destruction of vermin, disinfection of clothing, etc.

Remedial action: Prompt detection of wastage in the fighting strength and removal of its cause, whatever that may be. Here, statistical returns are of importance.

#### **An Abstract of a Lecture on Medical Supplies and Equipment.**

(By Colonel Henry I. Raymond, Medical Corps, U. S. Army.)

The Manual for the Army Medical Department, 1916, is divided into three parts. Part I treats of general medical administration; Part II treats of the sanitary service in war and Part III is upon the Supply Tables. The three grand subdivisions of supply are Post, Dental and Field.

Post supplies appear under the following subdivisions: (a) Medicines, antiseptics and disinfectants, (b) stationery, (c) miscellaneous, (d) laboratory supplies, (e) identification supplies and (f) X-ray supplies. In addition to the foregoing supplies the post or regimental surgeon must keep on hand certain field supplies in time of peace for the exigency of war. These are: (a) first aid packets for every officer and enlisted man of the command, (b) individual equipment, medical of-

ficer, (c) individual equipment, Hospital Corps, (d) regimental combat equipment, (e) camp infirmery equipment, (f) "additional articles" which when added to the camp infirmery will permit of the establishment of a regimental hospital.

Dental supplies are carried under two headings: (a) base, suitable for service in a general hospital, (b) portable outfit for itinerant service.

Field supplies embrace all those for field sanitary units, such as field hospitals and ambulance companies, and are replenished by issues from the base and advance medical supply depots. The advance depot makes issues chiefly to the fighting forces in the zone of the advance. This depot must keep in stock at all times at least one "medical reserve unit," which is a collection of medical supplies estimated to be sufficient to meet the immediate requirements of a reserve for one infantry regiment. A medical reserve unit as issued from a supply depot is contained in some 255 packages weighing about 18,000 pounds. The supplies and equipment of an Evacuation hospital are contained in 565 packages and weigh over 30 tons. This hospital located in the advance section of the line of communications is quite in contrast with the field hospital in the zone of the advance as regards mobility, for the field hospital supplies and equipment including tents are contained in 213 packages and weigh but 8 tons. Yet this seems excessive for a distinctly mobile field unit and the tendency is to trim it down. Only recently the beds and cots have been thrown out for hay and rubber blankets.

Certain equipment designations prescribed in general orders are as follows: Equipment "A" is that prescribed for use in campaign or on the march and is the only equipment for which transportation is provided. Equipment "B" is that which, in addition to equipment "A," is prescribed for more or less stationary troops, as in camps of mobilization, concentration, instruction or maneuver. Equipment "C," is the sum of equipment "A" and "B" and hence it includes every article prescribed for field service.

#### **IN ERRATA.**

On page 386 of the September Journal under New Members the name Bogue, H. E., should be H. Virgil Bogue.

#### **NEW MEMBERS.**

Flagg, Don P., Los Angeles.  
Slater, John H., Los Angeles.  
Smith, Bertrand, Los Angeles.  
Stephens, J. M., Los Angeles.  
Thomas, Benjamin, Palo Alto.  
Clark, Ernest M., Oakland.  
Forbes, Henry Stone, Berkeley.  
Hieronymus, Arthur, Alameda.  
Mehrmann, H. B., Oakland.  
Rowe, Albert Holmes, Oakland.  
Minaker, A. J., San Francisco.  
Hewlett, A. W., San Francisco.  
Herrington, Edward Lee, San Francisco.  
Deimel, H. F., San Francisco.  
Pietrafesa, Rocco, San Francisco.  
Holzberg, Henry L., San Francisco.  
Friedman, Aaron, San Francisco.

#### **DEATHS.**

Powers, Thomas, Los Angeles.  
Makenson, Winfield S., Rio Vista.  
McLaughlin, James H., Sutter Creek.  
Cate, La Fayette, Adin.  
Rosenberger, John Ashby, Del Rey.  
Felt, Seth C., Los Angeles.  
La Spada, Francesco, San Jose.